

POLEMH1 POLEMH2 POLEMH3

Contact

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NOTE

Please note that the wallboxes shown on the cover sheet are not included with the respective POLEMHx, but can be ordered separately for a fee.



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Additional technical information

Additional technical information is required to install an eMH1, eMH2 or eMH3 Wallbox on a POLEMHx mounting pole, as well as regarding further accessories. It is contained in separate documents.

In addition, the technical data for your mounting pole are collated in product-specific data sheets. You can download these documents from the ABL website using the following link:



<https://www.ablmobility.de/en/service/downloads.php>

NOTE

Displaying the additional information on a computer, tablet or smartphone

Additional technical information is made available in the Portable Document Format (PDF).

- To display PDF files, you need the free Adobe Acrobat Reader or comparable software.

You can find further information about our product range, as well as about separately available accessory components on our website at www.ablmobility.de. Please visit:



<https://www.ablmobility.de>

Intended use

The POLEMHx mounting poles are used to install a corresponding eMH1, eMH2 or eMH3 Wallbox outdoors. In order to ensure the necessary stability, the POLEMHx can be installed on the optionally available EMH9999 concrete foundation or on a self-constructed concrete foundation. To protect the installed wallbox from the weather, ABL offers the compatible WPR12 (POLEMH1/2) and WPR36 (POLEMH3) weather shield. For cable management at the charging point, the CABHOLD cable holder with charging plug receptacle can be retrofitted.

Information in this document

This document describes the installation of the POLEMHx on the EMH9999 foundation as well as the subsequent mechanical installation and electrical connection of a wallbox to the mounting pole: It is recommended that all working steps described in this document are carried out by qualified specialist electrical contractors only.

	User	Specialist electrical contractor
Installation manual (this document)	✗	✓
Additional technical information		
■ Data sheets	✓	✓
■ Installation instructions WPR12/36	✓	✓
■ Installation instructions CABHOLD	✓	✓

Important information

General

This manual describes all working steps required to install and/or operate the product it concerns.

Certain sections of this manual are specially formatted for quick and easy reference.

- Descriptions listing equally valid options are indicated by bullet points.
- 1 Descriptions listing operating steps are numbered in chronological order.



DANGER!

Indicates life-threatening electrical voltages

Sections marked with this symbol indicate electrical voltages that present a danger of loss of life or grievous bodily injury.

- Actions marked with this symbol must not be carried out under any circumstances.



WARNING!

Indicates important actions and further hazards

Sections marked with this symbol indicate further hazards that may result in damage to the product or to other connected components.

- Actions marked with this symbol must be carried out with special care.



NOTE

Indicates important information for operation or installation

Sections marked with this symbol indicate further important information and features necessary for successful operation.

- Actions marked with this symbol should be carried out as required.
- Passages marked with this symbol contain valuable additional information.

Safety instructions

The safety notices serve to ensure the proper and safe installation, as well as subsequent safe operation of the device.



DANGER!

Violation of the safety information

Disregard of or actions contrary to the safety information and instructions contained in this manual may lead to electric shock, fire, severe injury and/or death.

Please pay attention to the following points:

- Please read this manual carefully.
- Heed all warnings and follow all instructions.
- Only use accessories intended and sold for the product by ABL.
- Do not install this device in close vicinity to running water, water jets or areas subject to flooding.
- The product must not be installed in explosive atmosphere areas (EX areas).
- Mechanical installation should be carried out by qualified specialist personnel.

- Electrical installation and testing must be carried out with reference to local rules by a qualified specialist electrical contractor, who, on the basis of their specialist training and experience, as well as their knowledge of the relevant standards, is able to assess and carry out the working steps described in this manual and recognise potential hazards.



WARNING!

Notification or approval requirement for charging stations

Please note that electrical grid operators, energy suppliers or national regulations may require notification of or approval for the installation or operation of a charging station.

- A Duty to Notify applies in Germany according to §19 NAV.
- In case of installation faults, or malfunctions that can be traced back to faulty installation, always contact the contractor who carried out the installation first.
- The product must not be covered with stickers or other objects or materials.
- No liquids or receptacles containing liquids must be placed on the product.
- Please note that the POLEMHx mounting pole must never be installed directly on asphalt! To ensure safe and proper mechanical installation, the optionally available EMH9999 concrete foundation or a functionally equivalent alternative must always be provided.
- Do not under any circumstances make alterations to the product. Any disregard of this instruction represents a safety risk, fundamentally breaches the guarantee provisions and may void the warranty with immediate effect.
- Malfunctions affecting the safety of persons, connected electric devices or the device itself must be resolved by a qualified specialist electrical contractor.
- Should one of the following malfunctions occur, please contact the specialist electrical contractor who has carried out the installation of your wallbox and accessories:
 - The product housing has been damaged mechanically, or the housing cover has been removed or can no longer be closed.
 - Sufficient protection against splashing water and/or foreign objects is no longer provided.
 - The product does not function properly or has been otherwise damaged.



WARNING!

Observation of further safety instructions

Please always observe all further safety instructions in the manuals for the optionally available wallbox and other accessories for the POLEMHx.

User information

- Ensure that rated voltage and rated current of the supply cable at the installation location comply with the parameters of your local electricity grid and that the rated output of the wallbox installed on the POLEMHx is not exceeded during operation.
- Local safety regulations regarding the operation of electrical devices for the country in which you operate the wallbox installed on the POLEMHx always apply.
- Never install or operate the POLEMHx in confined spaces. In particular, it must be ensured that vehicles can be parked at a suitable distance from the POLEMHx for charging and can be connected to the charging cable without tension.
- Make sure that the POLEMHx is always closed and locked when in use. All authorised users must be aware of the 'unlock' position of the key.
- You must under no circumstances make any changes to the housing or the internal wiring of the POLEMHx: Any disregard of this instruction fundamentally breaches the guarantee provisions and voids the warranty with immediate effect.

- No user-maintainable parts are located inside the device.
- Only have the POLEMHx repaired by a qualified specialist electrical company.
- The wallbox installed on the POLEMHx may only be operated after it has been installed without any technical faults and subsequently approved by a qualified specialist electrical company.

**NOTE****Changes to functions and design features**

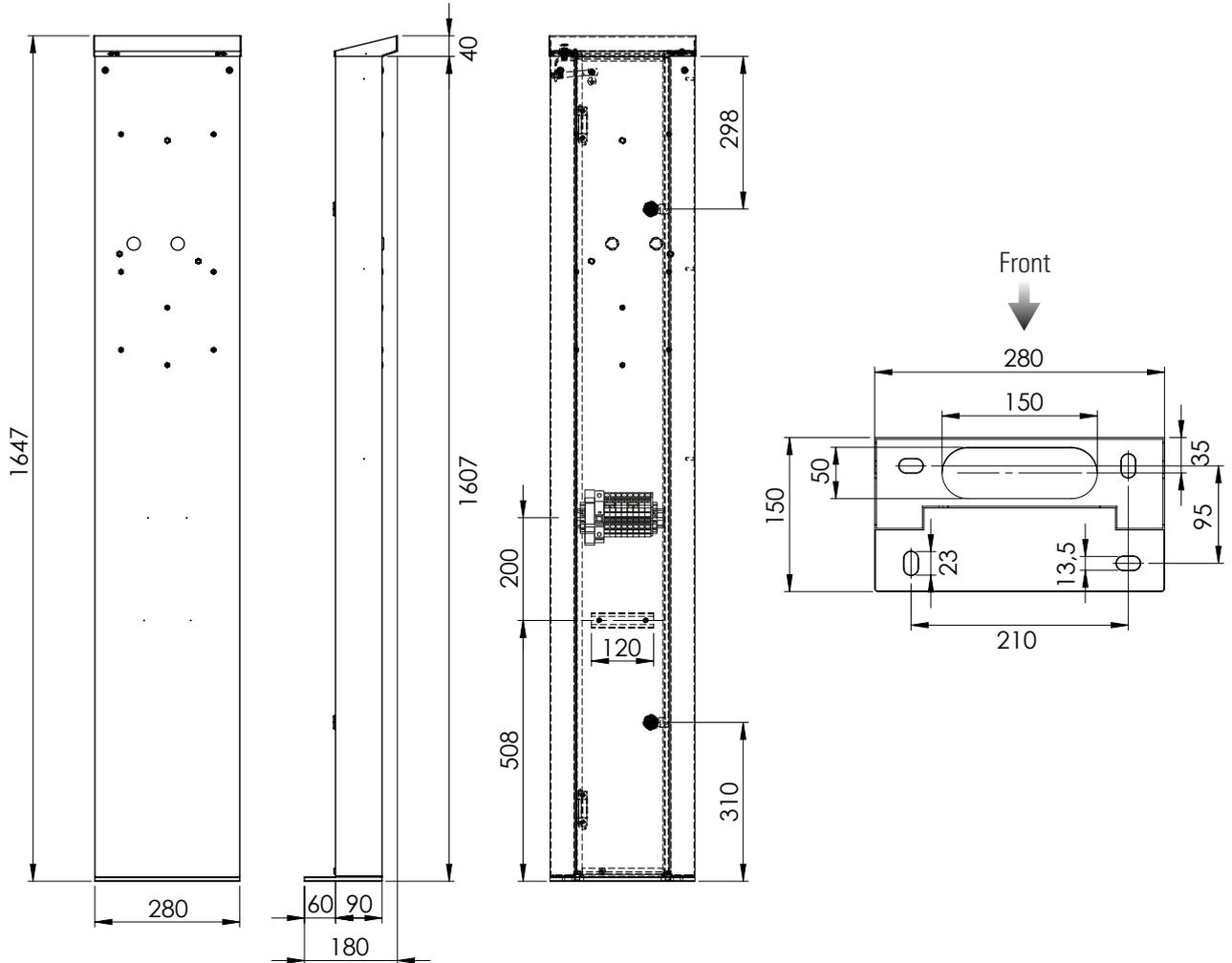
Please note that all technical details, specifications and design characteristics of the product may be changed without prior notice.

Dimensional drawings and dimensions

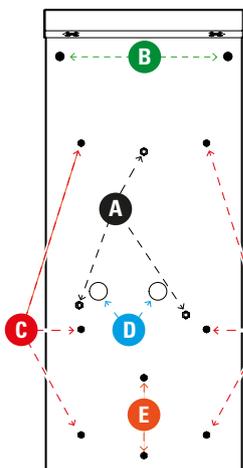
The dimensions and mounting points of the POLEMHx as well as the optional EMH9999 foundation are shown in the following dimensional drawings.

POLEMH1

Mounting pole for installing an eMH1 Wallbox, front, side and rear view as well as view from below (all dimensions in mm)



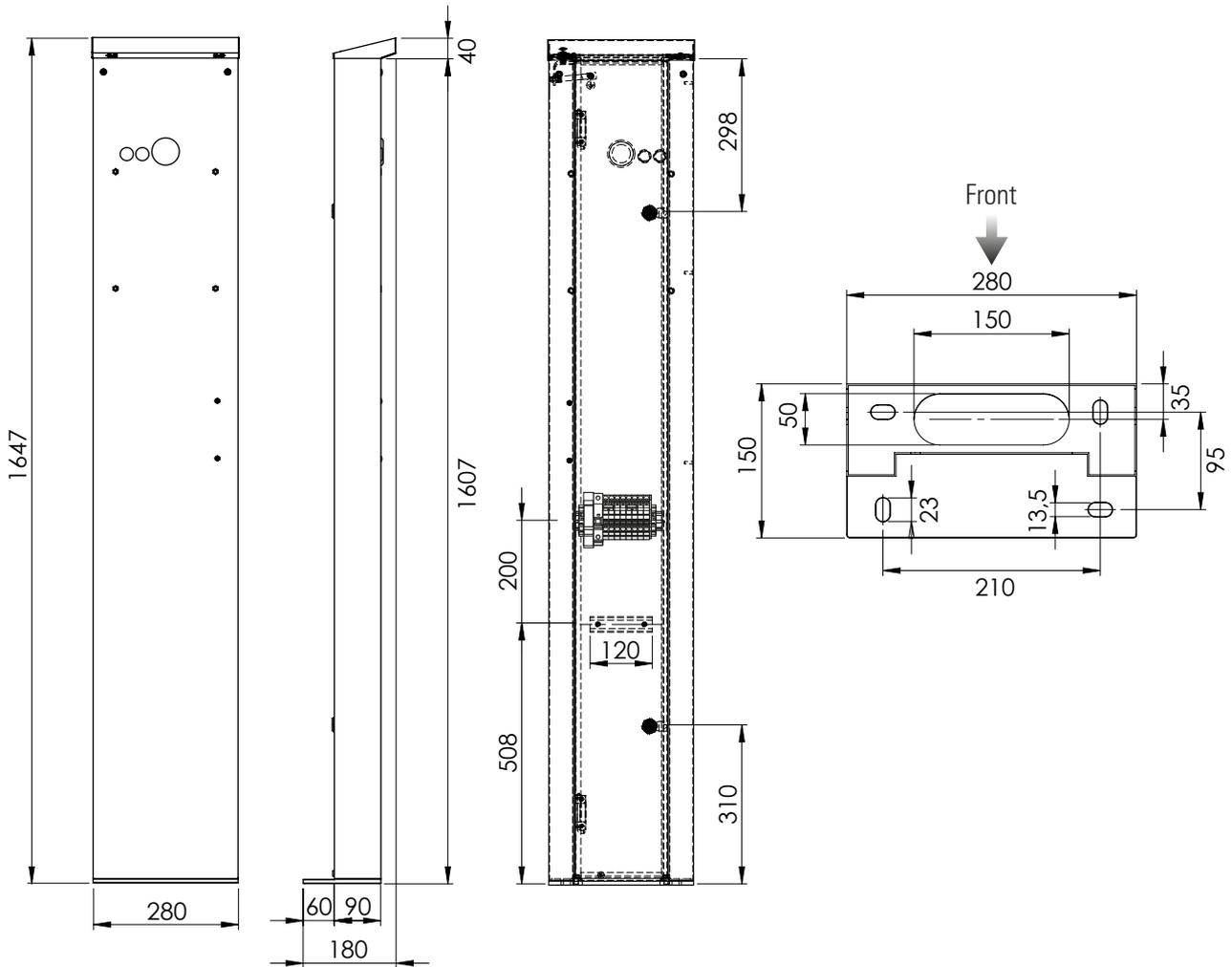
Detailed view of the front



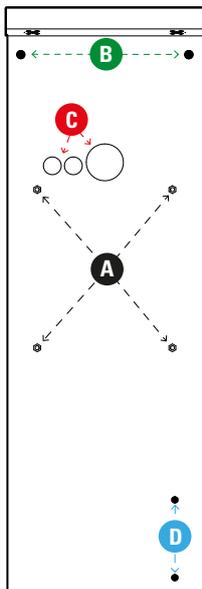
- A** These three thread points are used for directly mounting the eMH1 Wallbox on the POLEMH1.
- B** These two thread points are used for directly mounting the WPR12 weather shield on the POLEMH1 (see "Accessories" on page 13).
- C** These six thread points are used for directly mounting a WHEMH10 or 1W0001 mounting plate on the POLEMH1 (see "Accessories" on page 13). The eMH1 Wallbox is then screwed to the mounting plate.
- D** The supply cable (right) and any data cables (left) are inserted into the eMH1 Wallbox via these two openings.
- E** These two thread points are used for directly mounting a CABHOLD cable holder on the POLEMH1 (see "Accessories" on page 13).

POLEMH2

Mounting pole for installing an eMH2 Wallbox, front, side and rear view as well as view from below (all dimensions in mm)



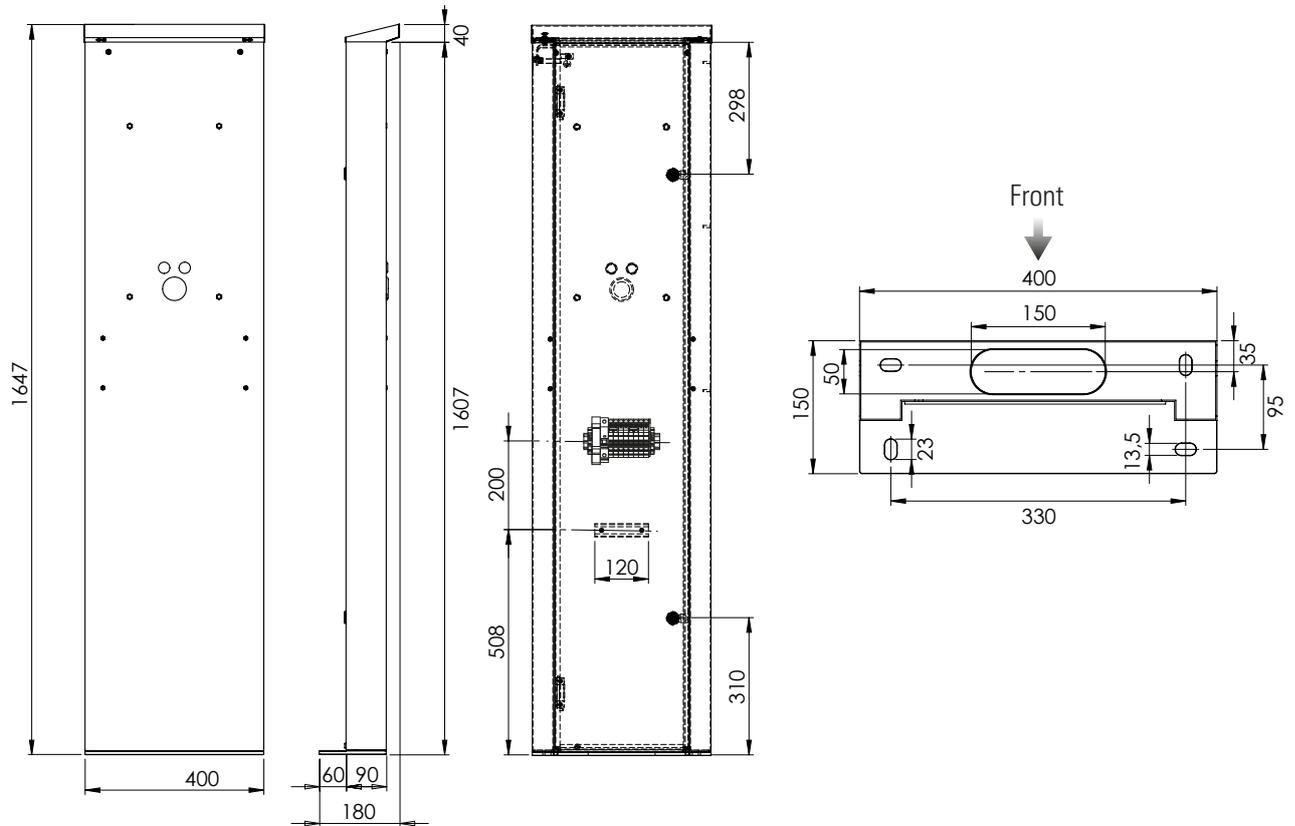
Detailed view of the front



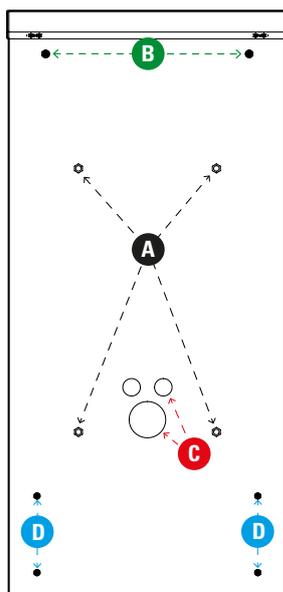
- A** These four thread points are used for directly mounting the eMH2 Wallbox on the POLEMH2.
- B** These two thread points are used for directly mounting the WPR12 weather shield on the POLEMH2 (see "Accessories" on page 13).
- C** The supply cable is inserted into the eMH2 Wallbox via the large opening, while the two small openings are for data cables.
- D** These two thread points are each used for directly mounting one CABHOLD cable holder on the POLEMH2 (see "Accessories" on page 13).

POLEMH3

Mounting pole for installing an eMH3 Wallbox, front, side and rear view as well as view from below (all dimensions in mm)



Detailed view of the front



- A** These four thread points are used for directly mounting the eMH3 Wallbox on the POLEMH3.
- B** These two thread points are used for directly mounting the WPR36 weather shield on the POLEMH3 (see "Accessories" on page 13).
- C** The supply cable is inserted into the eMH3 Wallbox via the large opening, while the two small openings are for data cables.
- D** These two thread points are each used for directly mounting one CABHOLD cable holder on the POLEMH3 (see "Accessories" on page 13).

EMH9999

ABL offers the EMH9999 foundation as an optional accessory for installing the POLEMHx: The foundation block is made from grade C30/37 concrete and complies with exposure classes XC4 and XF1 for outdoor use. Integrated threaded anchors ensure stable and secure installation of the POLEMHx, and the supply line and data cables can be fed into the mounting pole from below via recessed pipelines.

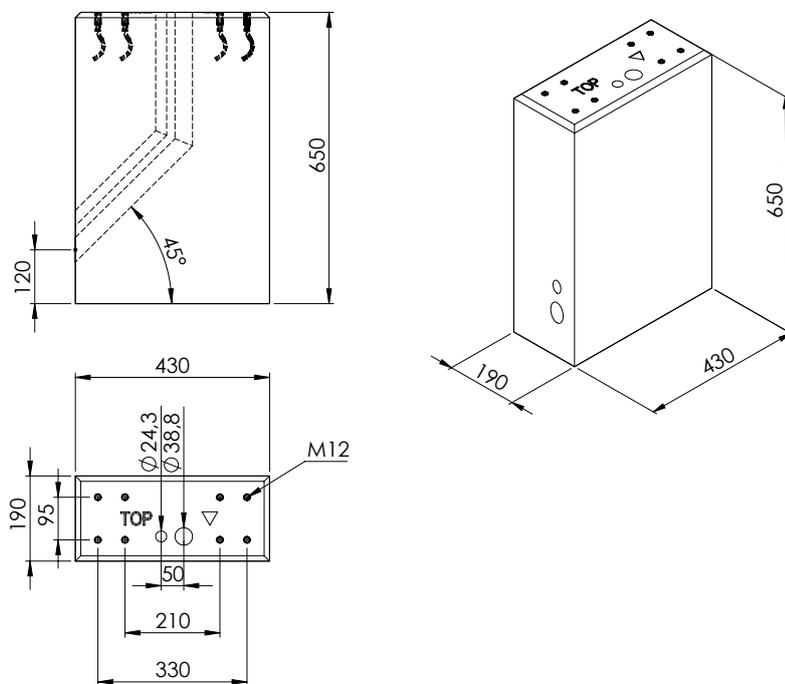
NOTE

Using a custom foundation

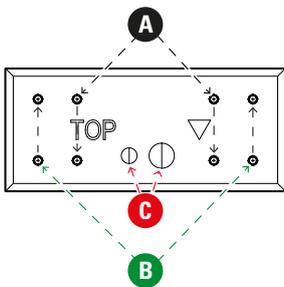
These instructions describe how to install the POLEMHx on the EMH9999 concrete foundation. In principle, it is possible to make a custom foundation, but this must be based on the specifications of the EMH9999.

- If you wish to install and operate the POLEMHx on a self-made foundation, a stable base and fault-free operation outdoors cannot be guaranteed.

Concrete foundation for installing a POLEMH1/2/3 mounting pole, side, top and isometric view (all dimensions in mm)



Detailed view of the top side



- A** These four threaded anchors are used to mount the POLEMH1 or POLEMH2 mounting pole using the washers and M12 screws supplied.
- B** These four threaded anchors are used to mount the POLEMH3 mounting poles using the washers and M12 screws supplied.
- C** The large opening on the right is used to feed the supply cable through the foundation into the POLEMHx, while the small opening on the left is intended for data cables.

Introduction to the POLEMHx

Thank you very much for choosing the POLEMHx mounting pole from ABL!

The POLEMHx is designed for the outdoor installation of an ABL Wallbox. With its internal terminal block, the POLEMHx makes it particularly quick and easy to connect the wallbox to the local power grid. Access is via a rear housing door, which is protected against unauthorised access by integrated locks.

Thanks to the powder-coated metal housing, the POLEMHx is optimally protected against corrosion and, with housing impermeability in accordance with IP44, it is ideal for outdoor installation. Thanks to integrated LEDs with their own twilight switch, the POLEMHx ensures good lighting of the installed wallbox at all times.

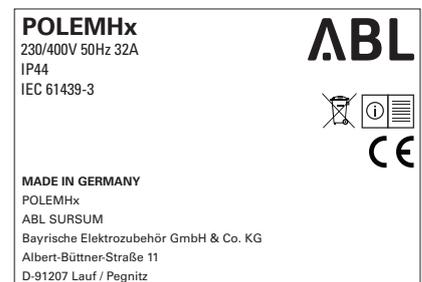
To ensure a stable and secure position outdoors, ABL recommends installing on the optionally available EMH9999 concrete foundation. Alternatively, a self-constructed foundation can be used, but it must meet the same specifications.

Further information on technical data is available in the appendix from page 32.

Identification of the POLEMHx

There is a rating plate on the inside of the side panel to identify the POLEMHx: Before installation, open the housing door and check the rating plate to make sure that the model you have is the mounting pole suitable for your wallbox.

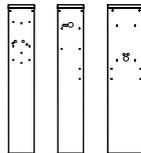
For more information on the individual variants of the POLEMHx, see the section "Technical specifications" on page 32.



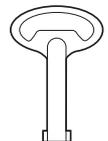
Items supplied

The product is delivered including the following components:

- Mounting pole (POLEMH1, POLEMH2 or POLEMH3), 1 pc



- Triangular key for unlocking the housing cover, 2 pcs



- Download note (multilingual), 1 pc



In addition, each POLEMHx is supplied with a screw set for installing the wallbox:

■ POLEMH1

- M6×16 half-round head with hexagon socket, 3 pcs



■ POLEMH2

- M6×16 half-round head with hexagon socket, 2 pcs
- M6×16 cylinder-head screw with hexagon socket, 2 pcs



■ POLEMH3

- M8×25 half-round head with collar and hexagon socket, 4 pcs



! NOTE

Checking the components included

Check immediately after unpacking whether all components are included: should any components be missing, please contact the dealer from whom you purchased the POLEMHx.

**WARNING!****Storing the original packaging**

Keep the original packaging in a safe place. In the event of damage that cannot be repaired on site, the mounting pole may have to be dismantled and sent in for repair. The following requirements must be met for proper shipping:

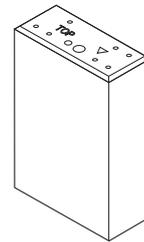
- The mounting pole must be protected from mechanical damage during transport by means of the original packaging or other packaging.
- To ensure safe shipping, fixed transport on a pallet is recommended.

Accessories

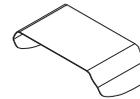
The following accessories for the POLEMHx mounting poles are available separately:

■ EMH9999

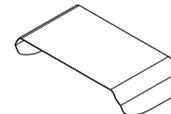
Precast concrete foundation for installing the mounting pole POLEMHx
h = 650 mm, w = 430 mm, d = 190 mm

**■ WPR12**

Weather shield for installation on an exterior wall or the mounting poles POLEMH1 and POLEMH2
h = 142 mm, w = 395 mm, d = 225 mm

**■ WPR36**

Weather shield for installation on an exterior wall or the mounting pole POLEMH3
h = 142 mm, w = 515 mm, d = 285 mm

**■ CABHOLD**

Cable holder with charging plug receptacle for installation on an exterior wall or the mounting poles POLEMH1/2/3
h = 187 mm, w = 76 mm, d = 105 mm



You can find further information on **ABL** charging stations and accessories at www.ablmobility.de.



Installation

When installing the POLEMHx, various specifications regarding the location and the connection technology must be met in order to ensure safe operation.

Requirements for the installation site

The POLEMHx was developed for outdoor use. To ensure proper installation, you as the operator must adhere to the following specifications regarding the location and positioning.

- Be sure to observe all local regulations for electrical installations, fire prevention and accident prevention.
- All guidelines for the installation of low-voltage systems in accordance with IEC 60364-1 and IEC 60364-5-52 apply.
- The installation surface must have sufficient strength to withstand the mechanical loads. It is therefore strongly recommended not to install the POLEMHx directly on asphalt or a concrete floor, but to use a concrete foundation such as the ABL EMH9999 with suitable specifications (concrete C20/25 in accordance with EN 206-1:2013).
- A sufficiently dimensioned supply cable for the power supply of the respective wallbox must be provided at the installation location. The supply cable must be laid so that it lines up with the pipe opening in the concrete foundation and in the ground. If necessary, the supply cable must be protected against mechanical influences (by a suitable hose or pipe) in the area in front of the foundation.
- Suitable collision protection must be provided on site to provide the vehicle with mechanical protection from possible collisions with the POLEMHx.
- The minimum distance between the vehicle and the POLEMHx should be not less than 50 cm and not more than 150 cm.
- Select the installation location so that the charging cable from the wallbox easily reaches the charging socket on the vehicle: the cable must not under any circumstances be strained when connected to the vehicle.
- For the safe operation of your mounting pole, minimum distances to other technical installations must be observed: you can obtain further information from your electrical contractor or distributor.
- The POLEMHx should not be installed in high-traffic areas or along thoroughfares.
- The POLEMHx is designed in principle for operation at high ambient temperatures. However, it is important to ensure that the maximum permissible operating temperature is not exceeded due to external influences such as direct sunlight or similar.

Specifications for the mechanical installation of the POLEMHx

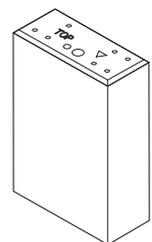
The entire installation of the POLEMHx should always be carried out by qualified personnel. at least two people are required for the mechanical installation.

For mechanical installation of the POLEMHx, you will need the following components:

- Triangular key for unlocking the housing door (included with the POLEMHx)



- EMH9999 concrete foundation for installing the POLEMH1/2/3



- ISO 4017 hexagon screw, M12×25, 4 pcs (included with the EMH9999)



In addition, you will need the following tools:

- | | | | |
|--------------------------------------|---|---------------------------|---|
| ■ Torque spanner, spanner size 17 mm |  | ■ Spirit level |  |
| ■ Phillips screwdriver |  | ■ Hexagon screwdriver |  |
| ■ Torx screwdriver |  | ■ Tape measure |  |
| ■ Bricklaying tools |  | ■ Concrete screed (mixed) |  |

Positioning the EMH9999 foundation and installing the POLEMHx

The optional EMH9999 concrete foundation from ABL provides a level installation surface for all POLEMHx mounting poles and ensures the necessary stability and support via factory-inserted screw anchors.

The following working steps are always identical, regardless of the mounting pole in question.



WARNING!

Creating a custom foundation

The calculation, design and manufacture of the self-made concrete foundation are the sole responsibility of the operator or the company carrying out the installation on behalf of the operator.



DANGER!

Dangerous electrical currents

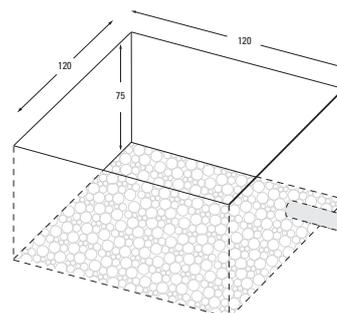
Always observe the 5 safety rules:

- 1 Cut power source
- 2 Secure all cut-off devices
- 3 Verify absence of voltage
- 4 Ground and short-circuit
- 5 Cover or bar access to adjacent components under voltage

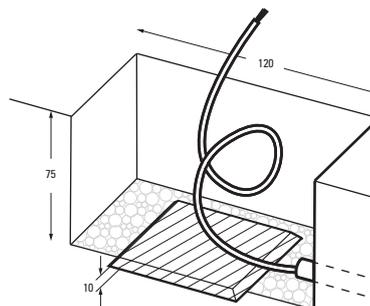
The supply cable must not be reconnected to the electricity grid until **Step 4** in the section “Electrical connection in the POLEMHx” on page 28!

Proceed as follows:

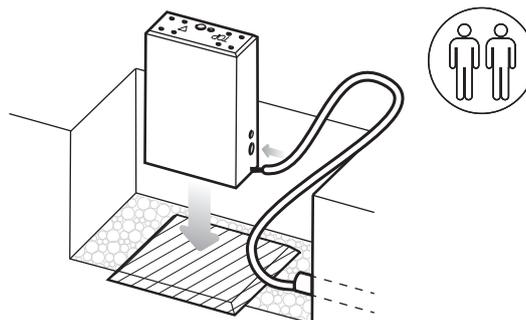
- 1 Dig a ditch suitable for the EMH9999 foundation (recommended: 120 × 120 cm).
 - Take into account the dimensions of the foundation (H × W × D: 650 × 430 × 190 mm) as well as a levelling layer (crushed rock/gravel) and a cement mortar layer of about 10 cm under the foundation.



- Apply a first layer of concrete screed with a height of approx. 10 cm at the positioning location of the foundation.



- Place the foundation centrally on the concrete screed. Make sure the supply cable can be inserted into the pipe opening on the foundation in this position.
 - This step must be performed by two people.



NOTE

Marking for installation

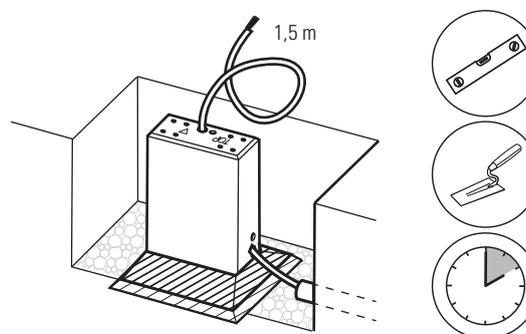
The EMH9999 foundation features markings to prevent errors when setting up: The top side with the ground anchors is marked **TOP**, while the adjacent **arrow** marks the front side of the mounting pole for installing the wallbox.

NOTE

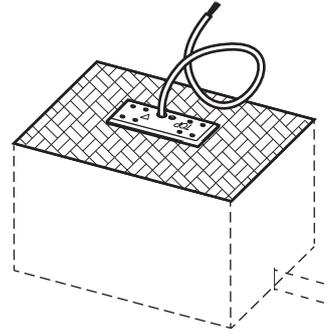
Laying data lines

If you wish to operate the wallbox in a group installation or control it in another way, you will also need to lay the appropriate data cables at the installation site.

- Level the foundation on the concrete screed on all planes. Form a circumferential support structure around the foundation with concrete screed (45° smooth line to approximately the lower edge of the pipe opening for the supply cables).
- Allow the concrete to set completely over a reasonable period of time so that the foundation is protected from slipping when the ditch is eventually filled and compacted with compactable soil.
- Run the supply cable (and data cables) with sufficient length (approx. 1.5 m) through the pipe opening(s) in the foundation for the subsequent installation of the wallbox on the mounting pole.

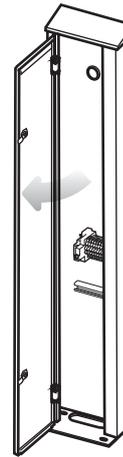


- 7** Fill the entire ditch around the foundation to ground level with compactable soil.
- The soil must be filled and compacted in layers and evenly on all sides.

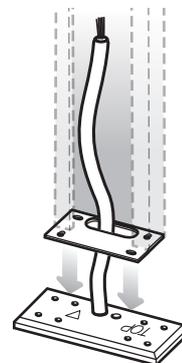


- 8** Smooth out the surface.

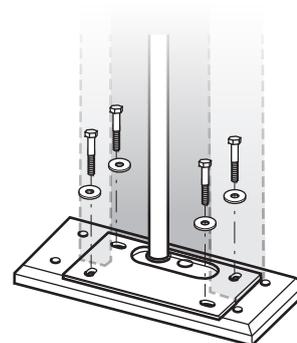
- 9** Use the triangular key supplied to open the housing door of the POLEMHx and flip it open.



- 10** Place the POLEMHx on the foundation and feed the power and/or data cables into the mounting pole via the cable opening in the base plate.
- This step must be performed by two people.



- 11** Align the POLEMHx over the holes on the foundation and screw the hexagon screws over washers into the ground anchors on the foundation.





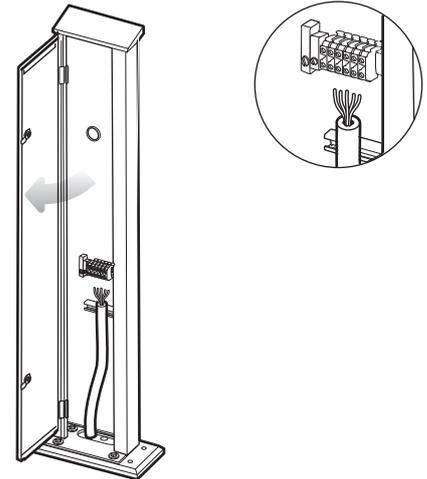
WARNING!

Assignment of the threaded anchors

The EMH9999 foundation has eight recessed threaded anchors for screwing on the POLEMHx (see illustration in section “EMH9999” on page 11).

- To secure the POLEMH1 and POLEMH2, use the four inner threaded anchors.
- To secure the POLEMH3, use the four outer threaded anchors.

- 12** Pull the supply cable with sufficient length to the terminal block on the upper top hat rail in the POLEMHx (recommendation: terminal block plus 15 cm).
- If you wish to control the wallbox, pull the data cables to an appropriate length (recommendation: up to the grommets plus at least 50 cm).



Specifications for the mechanical and electrical installation of the wallboxes

The mechanical and electrical installation of the wallbox on the POLEMHx must be carried out by qualified electricians: It is recommended that the installation be carried out by two persons.



DANGER!

Dangerous electrical currents

Always observe the 5 safety rules:

- 1 Cut power source
- 2 Secure all cut-off devices
- 3 Verify absence of voltage
- 4 Ground and short-circuit
- 5 Cover or bar access to adjacent components under voltage

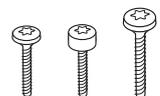
The supply cable must not be reconnected to the electricity grid until **Step 4** in the section “Electrical connection in the POLEMHx” on page 28!

For mechanical and electrical installation, you will need the following components included with the POLEMHx:

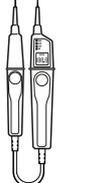
- Triangular key for unlocking the housing cover



- Installation set with all screws for the wallbox



In addition, you will need the following tools

- Torx screwdriver 
- Hexagon screwdriver 
- Phillips screwdriver 
- Utility knife 
- Stripping tool 
- Voltage tester 

NOTE

Additional tools for installing the wallbox

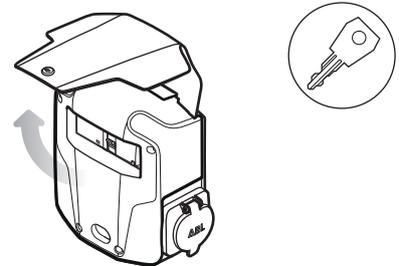
Additional accessories and tools are required for the installation and start-up of the respective wallbox. You can find further information in the corresponding installation instructions.

Installing the eMH1 Wallbox on the POLEMH1

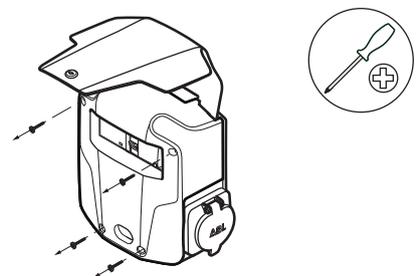
This section describes how to install the eMH1 Wallbox on the POLEMH1. If using an optional WHEMH10 or 1W0001 mounting plate, please refer to the instructions for mounting plates.

Proceed as follows:

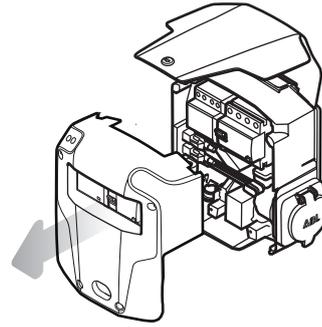
- 1 Open the housing cover of the wallbox using the key supplied and flip it up.



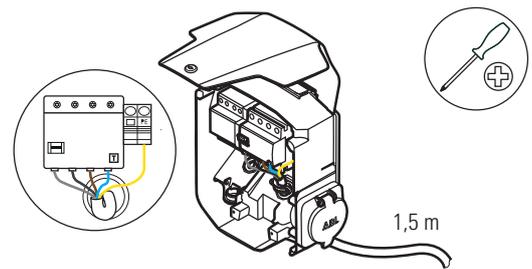
- 2 Loosen the four screws of the upper part of the housing using the Phillips head screwdriver.
 - Keep the four screws in a safe place.



- 3 Remove the upper part of the housing from the housing base.



- 4 Connect a supply cable measuring approximately 1.5 metres in length to the internal RCCB or terminal block (basic models) of the eMH1.
- To establish the connection, the grommet of the wallbox must be cut and the supply cable inserted into the interior of the housing.

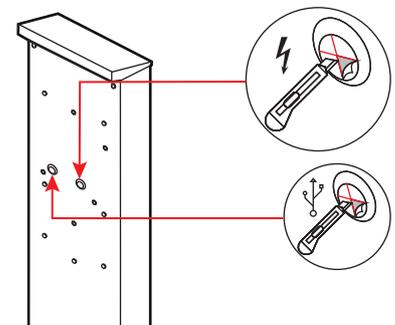


NOTE

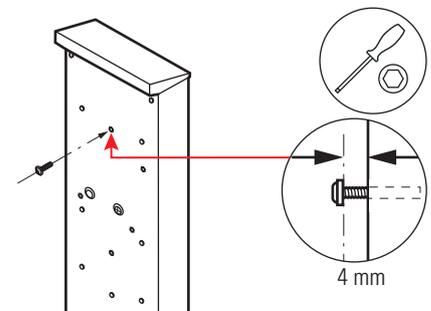
Detailed information in the installation instructions

The installation instructions for the eMH1 Wallbox contain detailed information on preparing for the electrical connection.

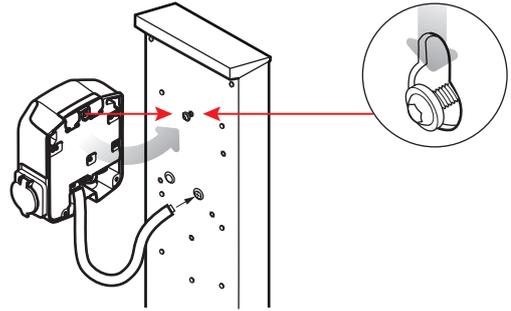
- 5 Remove the right-hand grommet on the front of the mounting pole, use the cutter to cut an opening for the supply cable in the membrane of the grommet and then replace it.
- If you also want to lay data cables into the wallbox, cut the left-hand grommet, too.



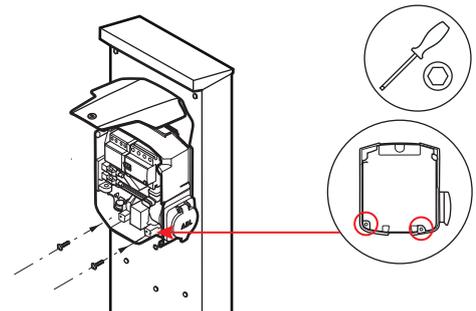
- 6 Using the hexagon screwdriver, screw one of the supplied M6×16 screws into the upper fixing point of the POLEMH1.
- The distance between the bottom of the screw head and the mounting pole must be 4 mm.



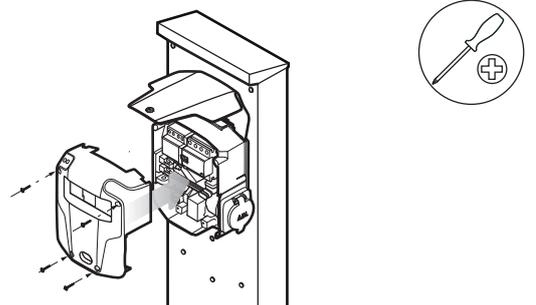
- 7** Insert the supply cable through the right-hand grommet into the housing of the POLEMH1 and hang the wallbox on the screw in the upper fixing point.



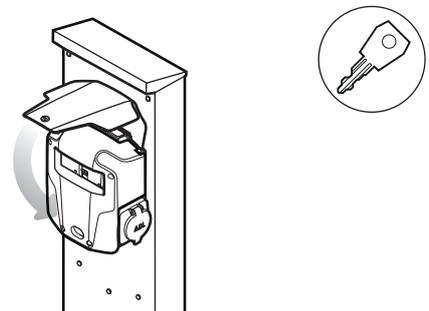
- 8** Using the hexagon screwdriver and the two M6×16 screws supplied, screw the wallbox into the two lower fixing points.



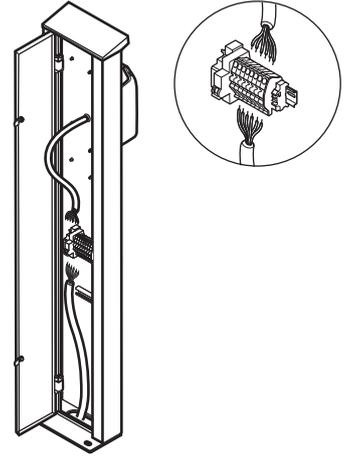
- 9** Place the upper part of the housing on the rear shell of the housing and screw it on with the screws loosened in Step 2.



- 10** Now lock the housing cover using the key.



- 11 Switch to the rear of the opened mounting pole and pull the supply cable of the wallbox to the terminal block of the upper top-hat rail.



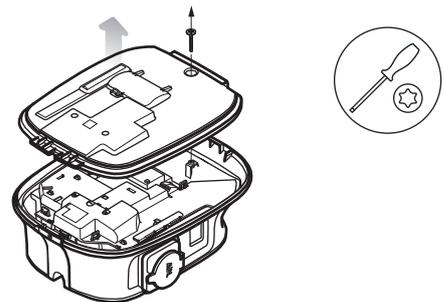
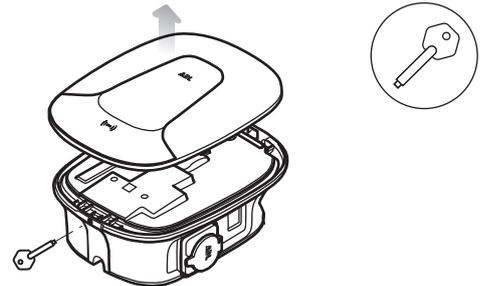
This completes the installation of the wallbox on the mounting pole. Go to the section “Electrical connection in the POLEMHx” on page 28.

Installing the eMH2 Wallbox on the POLEMH2

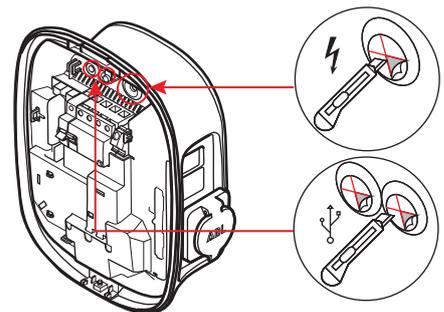
This section describes how to install the eMH2 Wallbox on the POLEMH2.

Proceed as follows:

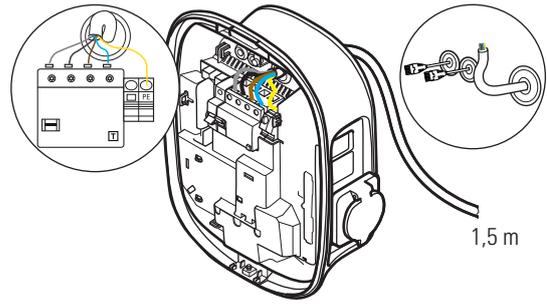
- 1 Open the housing cover of the wallbox with the housing cover key and put it aside.
 - Keep the screw in a safe place.
- 2 Loosen the screw holding the internal electronic components cover in place using a Torx screwdriver and put it aside.
 - Keep the screw in a safe place.



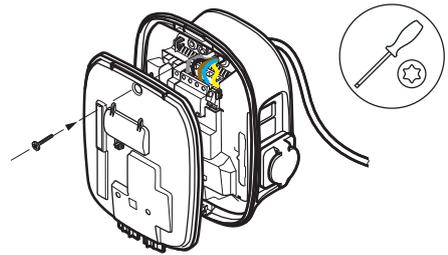
- 3 Use the utility knife to cut an opening for the power supply cable into the large rubber grommet in the housing base.
 - For wiring up group installations, you must also make cuts into the two smaller grommets for the data cables.



- 4 Connect a supply cable measuring approximately 1.5 metres in length to the internal RCCB of the eMH2.
- To establish the connection, the grommet of the wallbox must be cut and the supply cable inserted into the interior of the housing.



- 5 Replace the electronic components cover onto the rear shell of the housing and fix it into place with the screw you removed in **Step 2** and the Torx screwdriver.

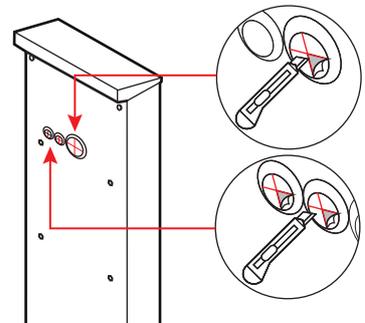


NOTE

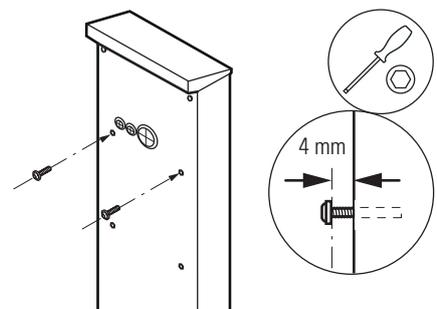
Detailed information in the installation instructions

The installation instructions for the eMH2 Wallbox contain detailed information on preparing for the electrical connection.

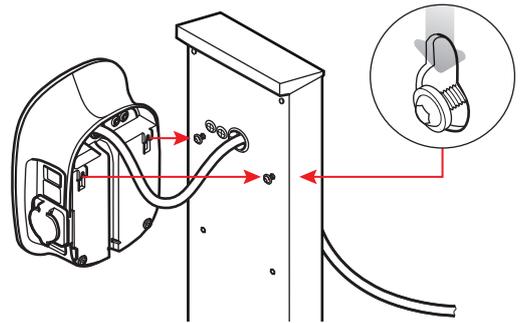
- 6 Remove the large grommet on the front of the mounting pole, use the cutter to cut an opening for the supply cable in the membrane of the grommet and then replace it.
- If you also want to lay data cables into the wallbox, cut both smaller grommets, too.



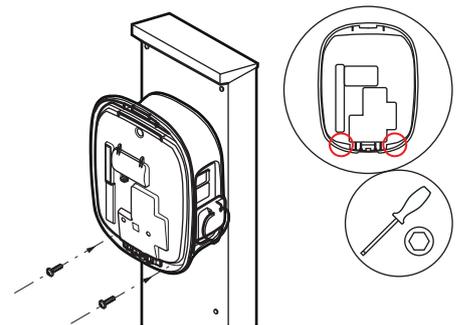
- 7 Using the hexagon screwdriver, screw the two M6×16 half-round head screws supplied with the mounting pole into the two upper fixing points of the POLEMH2.
- The distance between the bottom of the screw head and the mounting plate must be 4 mm each.



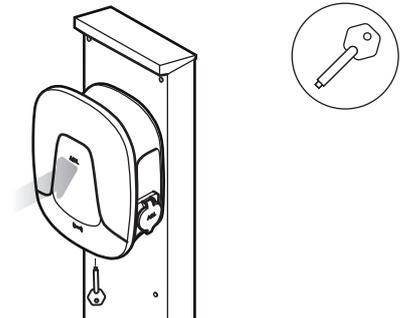
- 8** Insert the supply cable through the large grommet into the housing of the mounting pole and hang the wallbox on the two screws on the mounting pole.



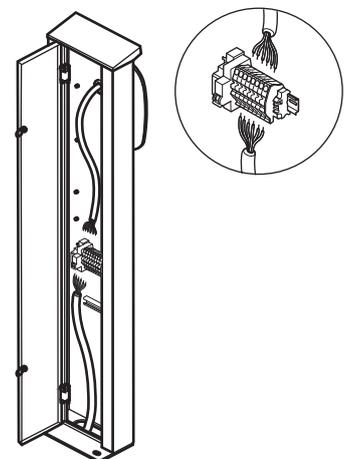
- 9** Use the two supplied M6×16 cylinder-head screws and the hexagon screwdriver to screw the wallbox into the two lower fixing points.



- 10** Hook the housing cover onto the upper edge of the housing base and lock it using the housing cover key.



- 11** Switch to the rear of the opened mounting pole and pull the supply cable of the wallbox to the terminal block of the upper top-hat rail.



This completes the installation of the wallbox on the mounting pole. Go to the section “Electrical connection in the POLEMHx” on page 28.

NOTE**Dehumidifying the POLEMH2**

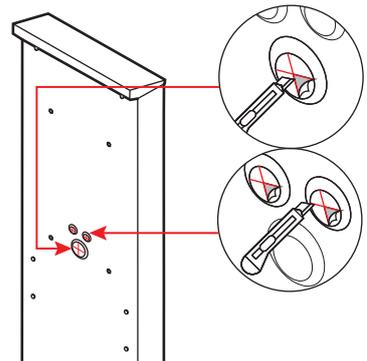
To dehumidify the interior, we recommend filling the base area of the POLEMH2 with dry granulate. This minimises any unwanted effects due to condensation and seepage water penetration.

Installing the eMH3 Wallbox on the POLEMH6

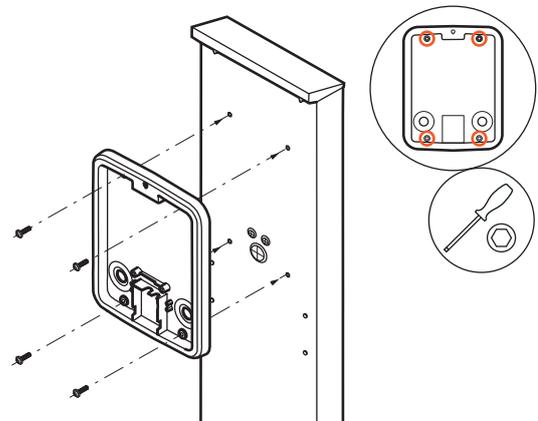
This section describes how to install the eMH3 Wallbox on the POLEMH6.

Proceed as follows:

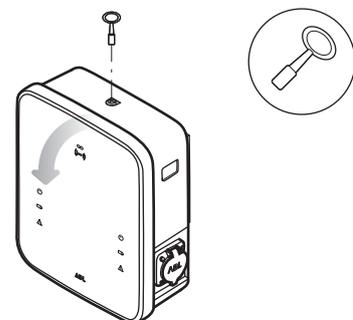
- 1 Remove the large grommet on the front of the mounting pole, use a cutter to cut an opening for the supply cable in the membrane of the grommet and then replace it.
 - If you also want to lay data cables into the wallbox, cut both smaller grommets, too.



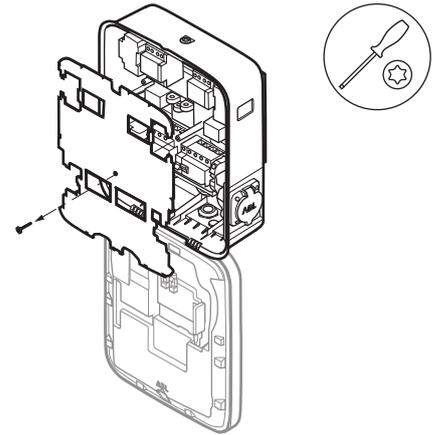
- 2 Screw the mounting plate of the eMH3 Wallbox to the front of the mounting pole using the hexagon screwdriver and the four M8×25 half-round head screws supplied.



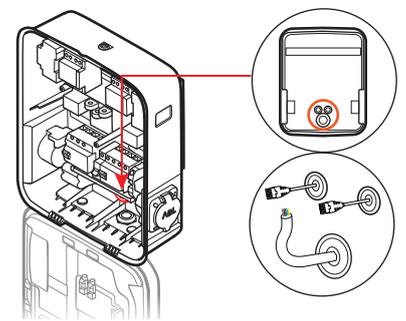
- 3 Open the housing cover of the wallbox using the triangular key and lower it.



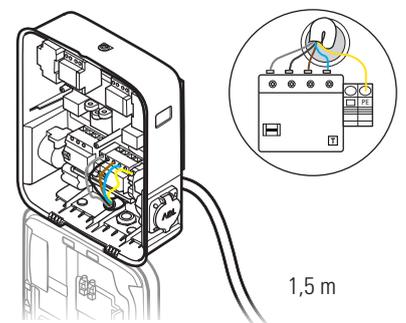
- 4 Loosen the screw holding the internal electronic components cover in place using a Torx screwdriver and put it aside.
- Keep the screw in a safe place.



- 5 Insert the power supply cable into the housing through the large grommet.
- For wiring up group installations, you must also insert the data cables into the housing through the small grommets.



- 6 Insert the individual conductors of the power supply cable into the respective terminals of the RCCB and tighten them using a screwdriver (torque: 2.5 to 3 Nm).
- End ferrules must be fitted on flexible conductors.
 - Operate the spring-loaded mechanism of the PE terminal and attach the protective earth conductor.
 - Use the connection patterns listed on page 29 to allocate the individual conductors.

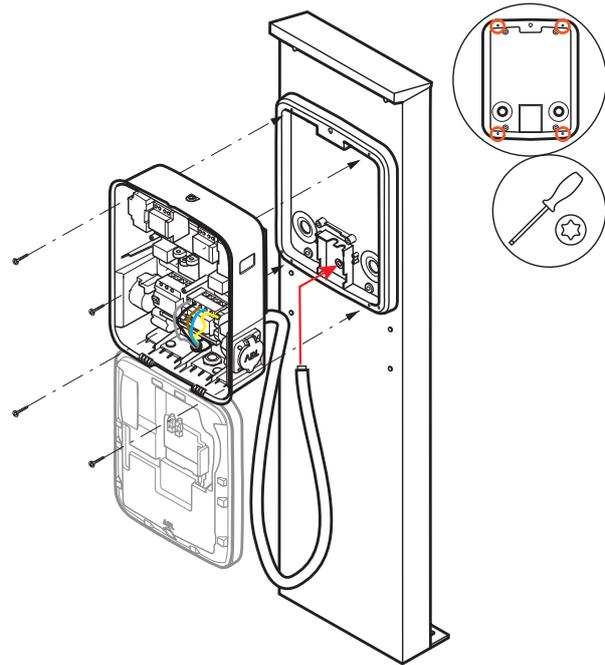


! NOTE

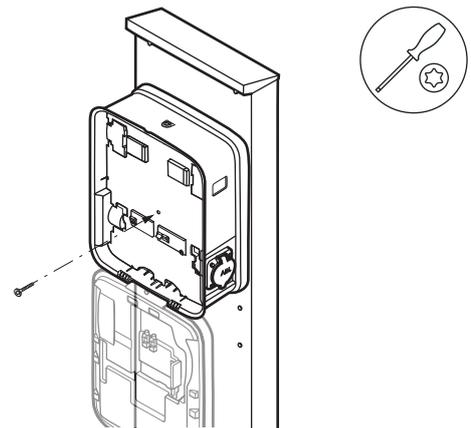
Detailed information in the installation instructions

The installation instructions for the eMH3 Wallbox contain detailed information on preparing for the electrical connection.

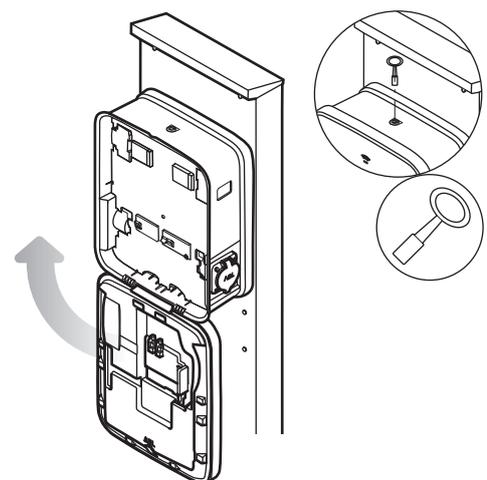
- 7** Insert the supply cable through the large grommet into the housing of the mounting pole and screw the wallbox into the mounting plate using the screwdriver and the screws supplied with the wallbox.



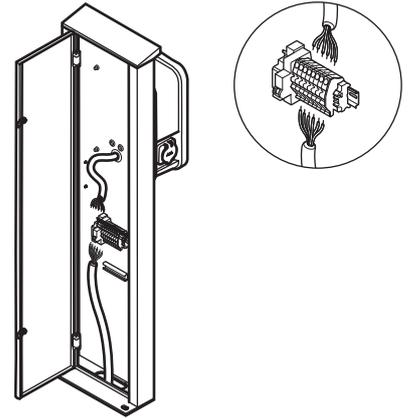
- 8** Replace the electronic components cover onto the wallbox housing and fix it into place with the screw you removed in Step 4.



- 9** Flip the housing cover up so that it clicks into the housing and lock it with the triangular key.



- 10 Switch to the rear of the opened mounting pole and pull the supply cable of the wallbox to the terminal block of the upper top-hat rail.



This completes the installation of the wallbox on the mounting pole. Go to the next section “Electrical connection in the POLEMHx”.



NOTE

Dehumidifying the POLEMH3

To dehumidify the interior, we recommend filling the base area of the POLEMH3 with dry granulate. This minimises any unwanted effects due to condensation and seepage water penetration.

Electrical connection in the POLEMHx

The following section describes how to connect to the terminal block in the POLEMHx. This process is identical for all mounting poles.



DANGER!

Dangerous electrical currents

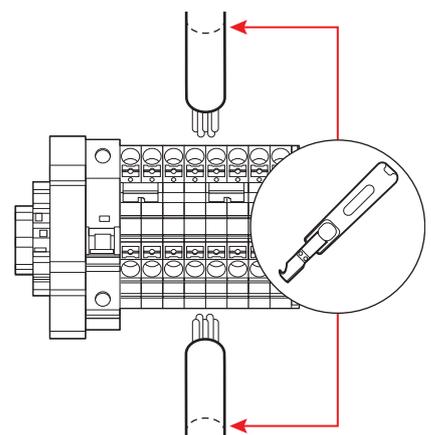
Always observe the 5 safety rules:

- 1 Cut power source
- 2 Secure all cut-off devices
- 3 Verify absence of voltage
- 4 Ground and short-circuit
- 5 Cover or bar access to adjacent components under voltage

The supply cable must not be reconnected to the electricity grid until **Step 4** in this section!

Proceed as follows to connect the wallbox supply cable and the power supply cable to the terminal block of the POLEMHx:

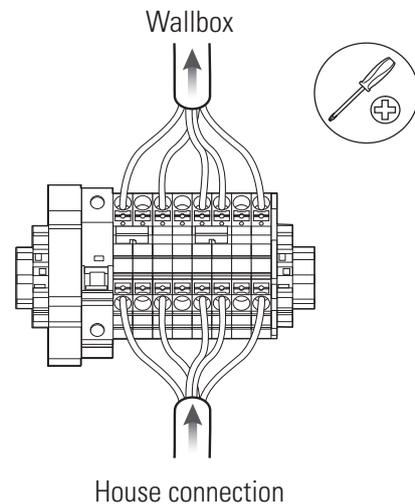
- 1 Shorten the wallbox supply cable to the required length for connection to the terminal block.
- 2 Shorten the power supply cable to the required length for connection to the terminal block.



 **NOTE**
Strain relief of the supply cable

It is advisable for the power supply cable be attached to the lower C-rail of the POLEMHx via a suitable strain relief.

- 3** Insert the individual conductors of the two cables into the respective terminals and tighten them using the Phillips-head screwdriver.
- End ferrules must be fitted on flexible conductors.
 - Operate the spring-loaded mechanism of the PE terminal and attach the protective earth conductor.
 - Use the following connection patterns to allocate the wires.

**Connection pattern 1-phase TN system (only for eMH1 and eMH2 Wallboxes)**

Designation	Conductor colour	Marks for
Phase 1 current-carrying conductor	Brown	L1
Neutral	Blue	N
Protective earth	Green-Yellow	PE

Connection pattern for 3-phase TN system

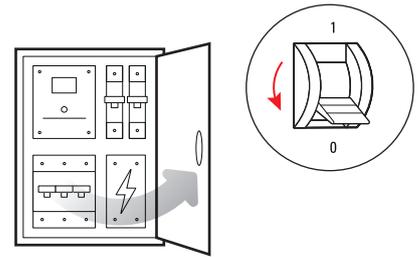
Designation	Conductor colour	Marks for
Phase 1 current-carrying conductor	Brown	L1
Phase 2 current-carrying conductor	Black	L2
Phase 3 current-carrying conductor	Grey	L3
Neutral	Blue	N
Protective earth	Green-Yellow	PE

 **WARNING!**
Checking the connection

Please ensure that the conductors that are pre-fixed to the terminal block remain attached correctly after connecting the power supply cable.

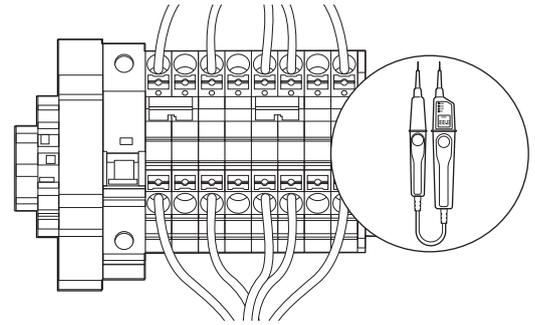
4 Connect the supply cable to the mains.

- As soon as the wallbox is connected to the electricity grid, it will initiate the start-up procedure.

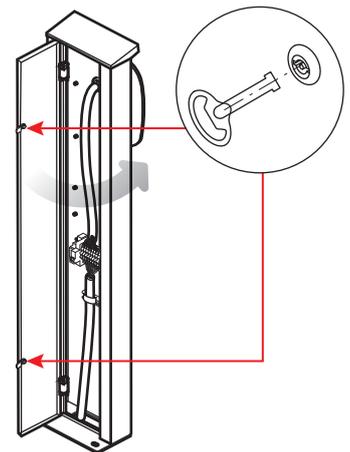


5 Measure the voltage at the individual terminals using the voltage tester.

- In single phase installations, the voltage is measured between the phase and neutral conductors.
- In 3-phase systems, all phases are measured against each other (400 V) and all phases are measured against the neutral conductor (230 V).



6 Close the POLEMHx housing door and lock it with the triangular key.



Safety instructions for start-up and operation

Before initial operation of the wallbox installed on the POLEMHx, you must observe the following safety notices:

- Ensure that the POLEMHx is installed according to the instructions in this document.
- Make sure the respective wallbox has been installed on the POLEMHx and connected in accordance with the relevant installation instructions and the information in this document.
- Ensure that the POLEMHx is freely accessible and that an electric vehicle can be connected to the charging cable without tension.
- Ensure that the POLEMHx is properly connected to the power supply cable and to the protective conductor.
- Ensure that the POLEMHx housing door is always locked during normal operation.

Troubleshooting and maintenance

If a malfunction should occur during operation, first check the points mentioned below. If the error cannot be rectified, contact your local sales partner and jointly determine how to proceed.

The following malfunctions may occur:

Malfunction	Possible cause and suggested solution
The installed wallbox is not functioning.	The power cable to the wallbox and/or the supply cable has not been correctly connected to the terminal block in the POLEMHx. <ul style="list-style-type: none"> ■ Check the connection.
	The RCCB/MCB for the house connection are not switched on. <ul style="list-style-type: none"> ■ Check the upstream RCCB/MCB.
	The internal RCCB/MCB of the wallbox are not switched on. <ul style="list-style-type: none"> ■ Check the RCCB/MCB on the wallbox.
The lighting on the mounting pole does not switch on at dusk or remains permanently lit.	The twilight switch is dirty. <ul style="list-style-type: none"> ■ Clean the LEDs in the head of the POLEMHx.
	The integrated power supply unit is not connected to the supply cable. <ul style="list-style-type: none"> ■ Make sure the conductors that are pre-fixed to the terminals are correctly fastened.
	The integrated MCB is switched off. <ul style="list-style-type: none"> ■ Set the toggle lever of the MCB to position I.
	The LEDs are defective. <ul style="list-style-type: none"> ■ Contact your local distributor to have the LEDs replaced.

Maintenance

The POLEMHx is essentially maintenance-free. However, we still recommend the mounting pole is regularly cleaned and its function checked:

- Use a dry or slightly damp, well-wrung cloth to clean the POLEMHx.
- Do not use aggressive cleaning agents, waxes or solvents (such as cleaning fluid or paint thinner) as they can cloud the LEDs or damage the paintwork.
- Never clean the POLEMHx with a high-pressure cleaner or similar device that applies liquid at high pressure to the surface of the housing.
- Check the housing of the POLEMHx regularly for signs of damage.
- Check the locks on the housing door and ensure that they move freely if necessary.

Appendix

Technical specifications

Model code	POLEMH1	POLEMH2	POLEMH3
Compatibility (wallbox)	eMH1	eMH2	eMH3
External power supply	for supply cable sizes up to 5 x 6 mm ²		
Rated voltage (power supply)	230/400 V		
Rated current (power supply)	up to 32 A, 3-phase		
Rated frequency	50 Hz		
Ambient temperature	-30 to 40°C		
Storage temperature	-30 to 85°C		
Max. internal temperature	-30 to 55°C		
Relative humidity	5 to 95%, no condensation		
IP rating	IP44		
Maximum elevation	≤ 2,000 m above mean sea level		
Material (mounting pole)	Electrogalvanised sheet metal (DC01+ZE25/25-0)		
Mounting pole finish	Fine-textured, satin powdercoated		
Material (base plate)	Plate metal (DD11)		
Housing colour	RAL 9011		
Integrated components	Terminal block, 12 V power supply, 2 A back-up fuse, 1-pole, Type C on top-hat rail; C-profile rail		
Lighting control	8 LEDs, with integrated twilight sensor		
Rated voltage (lighting)	230 V		
Locking mechanism	Twist lock, double bit, 3 mm mandrel, 2pcs		
Dimensions (H × W × D)	1,647 × 280 × 180 mm	1,647 × 400 × 180 mm	
Weight per unit (net)	approx. 20 kg	approx. 26 kg	
Weight per unit (gross)	approx. 23 kg	approx. 29 kg	

Protection classes & degrees of protection

Protection class / Degree of protection	Explanation
	Protection class I: All electrically conducting parts of the device are connected at low resistance with the protective earth system of the fixed installation.
IP44	Protection class of the unit (protection against penetration of solid foreign bodies with a diameter greater than 1 mm and against splashing water).

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Disposal notice



The crossed out trash can symbol indicates that electrical and electronic devices including accessories must be disposed of separately from household waste.

The materials are recyclable as marked. The reuse or recycling of materials, or other forms of repurposing of old devices make an important contribution towards protecting the environment.



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